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S. L. H.

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By Percy Flemming.

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end of which time he was put on the staff, not owing to any act of penitence on his part, nor to the forgiveness of the surgeons, but entirely as the result of outside influence. Once there his increasing opportunities helped to spread his fame, and surgeons came from all parts to see him operate.

In 1833 he failed to be elected Professor of Surgery, Syme being chosen over him.

This made it easy for him to accept the invitation to join the staff of the North London, or University College, Hospital, which was opened in 1835.

## At U.C.H.

It is just a hundred years ago since the University of London, now University College, was founded. From the first there was a Faculty of Medicine, lectures were given at the College, but the students had to go to the Middlesex Hospital for their clinical instruction. To meet this difficulty U.C.H. was founded and opened on November 1, 1834. Clearly the staff had to be recruited from outside, and Robert Liston was one of the first surgeons appointed, and was the first Professor of Clinical Surgery. He brought his house surgeon, Duncan, with him, an example followed many years later, when Lister brought Watson Cheyne with him when he left Edinburgh for King's College Hospital. Liston came to U.C.H., or as it was then called the North London Hospital, with a great reputation as an operator, and, as at Edinburgh, his name attracted students and surgeons from all parts.

In thinking of him as an operator one must remember that the absence of anæsthesia not only limited the range of possible operations, but from the patient's point of view made rapidity on the part of the surgeon a most important qualification. Liston was powerfully built, standing 6 ft. 2 in., and was remarkable for his rapidity in operating. This does not mean that he operated in a hurry. One who frequently saw him operate said that the sound of the sawing of the bone in a case of amputation seemed immediately to succeed the first flash of the knife. To save time, if he wanted to use both hands, he would temporarily hold the knife in his mouth.

Liston's idea of rapidity can be gathered from some remarks he made about breast cases. He dismisses cases of advanced carcinoma with secondary glands as inoperable—"too cruel" a procedure are

the words he uses. But in early cases the breast and tumour should be removed. Many operations, he says, speaking generally, can be done well and quickly too, and fully as well as quickly. But this —i.e., the removal of the mamma, is not one of these—the dissection should be proceeded with methodically and deliberately, the parts being examined by the finger and the eye as it proceeds. With all due caution and deliberation in the proceeding, it may be completed in a *few minutes*.

One of Liston's great contributions to practical surgery was the introduction of simple water dressing for wounds. Poultices, ointments, plasters were the usual form of dressing, and it must be remembered that it was the rule for wounds to suppurate. Liston never tires of describing such dressings as filthy and abominable, and an outrage on nature and common sense. He used plain lint dipped in cold water and frequently changed. If heat is to be applied he advised what is now called a fomentation, but which was then an obvious novelty. In a lecture delivered in 1846 he triumphantly says that the nurses at the hospital had almost forgotten how to make a poultice! For his generation he was a clean surgeon. He emphasizes the need for careful cleansing of the sponges[1] used in operation, and ordered the limb to be shaved preparatory to amputation.

Liston's amputation results seem very good—not of course judged by to-day's standard. Here are some statistics of amputations in the early days of U.C.H. It should perhaps be remembered, in judging them, that the Hospital was new and clean. From June, 1835 to 1840, there were sixty-six amputations by Liston, of which ten died; eleven of these amputations were for compound fracture and injuries, the operation being performed within twenty-four hours of the receipt of the injury. Of these, three were fatal on seventh, eleventh and forty-eighth day. The remaining fifty-six were for disease and of these seven died. Of twenty-two amputations of the thigh only four died.

One can appreciate these results better by comparing them with some published by Sir James Paget of amputations at St. Bartholomew's. From 1864-68 the percentage of deaths after primary amputation (i.e., within twenty-four hours) was 27·4, and after amputation for disease 31·6.

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[1] Sponges, not gauze swabs, were in regular use when I was a dresser—the same sponges being used time after time.

Liston dressed the stump in the following way: immediately the limb was removed lint, soaked in cold water, was applied to the flaps, and re-applied every few minutes, any coagula being gently removed; after some hours the surface of the flaps became glazed over; the flaps were then adjusted, and a few sutures applied. The stitches were removed in twelve to twenty-four *hours* and the flaps held together by strips of isinglass plaster. This plaster was an invention of Liston, one of its merits being that the condition of the wound could be observed through it—gaps were left for the discharge. Bandages were applied in three or four days.

When suppuration set in—the usual and expected result—the plaster was removed and lint dipped in tepid water applied. The average stay in hospital was forty to fifty days.

It is possible to see some of his work at U.C.H. by reading the lecture he published in the *Lancet*. One of the very earliest cases to be admitted to U.C.H. was one of traumatic aneurysm at the bend of the elbow, the result of venesection. Liston published it to show that it was possible to cure such cases by compression of the brachial artery, combined with direct pressure to the sac. In one of his lectures he refers to the danger of over operating, many cases of joint disease, he says, will get well with rest and constitutional treatment and need not be treated by amputation or excision. The latter was the usual procedure adopted in my student days. To-day I understand Liston's plan is much more often followed. Bearing in mind that Liston was easily the finest operator of his day, that he knew it, and that he liked applause (he would begin an operation by exclaiming, "time me, gentlemen, time me") it shows his breadth of view that he knew when not to operate. All surgeons at times makes mistakes, and Liston's eagerness to operate, once got the better of his judgment. He was one day going round the ward with his house surgeon, Mr. Bucknill (a name commemorated in the Bucknill Scholarship) and was shown a case of a boy with a swelling in the neck over the carotid. The house surgeon said: "The tumour pulsates and I can detect a bruit in it." "Pooh!" said Liston, "who ever heard of an aneurysm in a boy so young," and putting his hand into his right waistcoat pocket he took out a knife and made a deep incision into the tumour. "Out leaped the arterial blood, the boy fell," the artery was tied, but the boy died. The post-mortem showed an abscess which had ulcerated into the carotid. He subsequently published

the case but did not admit that he was in error (Museum Specimen 1256).

The difficulties to be overcome in operating in pre-anæsthetic days seem to me almost insuperable, yet in a very difficult case of ligature of common carotid, Liston blames the patient for being restless and noisy. He sums up a "very bad patient," a phrase one sometimes hears to-day from the lips of ophthalmic surgeons who mostly operate with local anæsthesia. In my student days there was a prejudice—I am not sure if entirely unfounded—against giving an anæsthetic for ligaturing the common carotid. And I once saw Christopher Heath ligature that vessel, the patient sitting in a chair. There did not seem much pain, at any rate the man was not a bad patient.

Liston operated on many jaw cases, both upper and lower, and the incision for removal of the upper jaw, which he figures in his book as his own, is similar to that shown in Rose and Carless. This seems a very serious operation to suggest to a patient who could not be anæsthetized, but Liston pours scorn on half measures, viz., cutting into the tumour, nibbling at it, grubbing out portions of it, applying caustics—all painful procedures and equally futile as regards a cure.

Lithotrity was practised by Liston instead of lithotomy (at any rate in his private practice from 1840 until his death in 1847). The fallacy of statistics is shown by his statement—perfectly true—that in the course of six years he operated on twenty-four cases of stone by lithotomy and they all did well. But a candid critic pointed out that if to this twenty-four, thirteen cases operated on previously were added, making a total of thirty-seven, then out of this total there were five deaths.

The name of a surgeon may be remembered for many years by being attached to a particular instrument. But, alas! instruments go out of fashion. Liston's bull-dog artery forceps—the forerunner of Spencer Wells' forceps—were used for many years at U.C.H. and elsewhere. My dresser's case was furnished with one and the instrument may be seen in Liston's own case in the Medical Library. Referring to this instrument in one of his lectures he says he does not know how his name came to be attached to it. Liston's long splint for fractured femur is now, I believe, rarely used. Liston's conical steel bougies are sometimes mistaken for Lister's, the latter have a bulbous tip.

There were no specialists in Liston's day. He lectured on the nose, throat and eye. He gives a good account of acute and chronic inflammation of the antrum, advising drainage in some cases through a tooth socket, in others through the nose. He has much to say about nasal polypi, but nothing about deflected septum. One of his triumphs was the removal of a piece of bone from the right *bronchus*.

In cases of "cut throat" he was very strongly of opinion that the wound be left open, the parts being kept in apposition by flexing the neck.

His references to eye surgery mainly concern gross diseases of the lid, and globe, styes, meibomian tumours, pterygium squint, lacrymal apparatus, &c. In describing how to remove a meibomian cyst, he says the upper lid should be everted by a dexterous application of the finger and thumb without the use of a probe. He did not hesitate to exenterate the orbit, the eyeball being first fixed with a vulsellum forceps and drawn forwards, the outer canthus divided, and the parts removed by a narrow sharp-pointed knife passed along the walls of the orbit to the bottom of the cavity (no anæsthesia !). In his textbook he gives a full account of cataract—probably he was helped in this by his friends the Dalrymples. It is difficult to imagine that the great big hand which could half encircle the thigh and compress the femoral artery, could also make a corneal section. But he makes no mention of ever having himself operated for cataract.

The internal history of U.C.H. in those early years is very disagreeable reading. The staff were divided into two actively hostile parties—one consisting of Cooper, the senior surgeon, Elliotson, senior physician, and Richard Quain. The other of Liston and A. Todd Thomson, of materia medica fame. The quarrels were not confined to the board room. The house officers, in duty bound, took up the quarrels of their chiefs and at times were hardly on speaking terms with one another. And at a visit, remarks not of a flattering kind might be heard with regard to Mr. So-and-So's treatment. Liston was impetuous and could and did make bitter and incisive remarks about his colleagues.

Erysipelas was very common in Liston's day, and cases were treated by physicians and surgeons. And the student of the time might in one week hear Elliotson teaching that the proper remedy was to paint the part with silver nitrate solution, Thomson extolling the local application of mercurial ointment, Samuel

Cooper assuring his class that it was sufficient to draw a line of lunar caustic around the red area, and Liston saying that there was no sense in "turning a white man into a nigger," or in "drawing lines horizontally, perpendicularly and slantingdicularly over a patient's body." He himself applied only flour and warm fomentations and gave large doses of belladonna internally. Each lecturer would point to cases proving the success of the particular line of treatment he advocated.[1] From the very first, the house appointments at U.C.H. were given as the result of examinations; at other hospitals such appointments depended entirely on personal recommendations, which often meant a heavy fee. Here is an examination paper for a H. S. in Liston's time:—

(1) Describe the mode of taking blood from the arm and the temple. What accidents may occur? How would you remedy them?

(2) What are the indications for tracheotomy? Describe the operation.

(3) Distinguish between a fracture of the neck of the thigh bone, and dislocation of the hip.

(4) Give the anatomical relation of the common carotid artery, and describe the method of applying ligature.

The practical examination included operations on the dead body and applying apparatus for fracture of lower jaw. The practical examination was in public—a custom which was followed in my student days.

So much for Liston as the surgeon: what about him as a man? As has been said, he could use bitter words, and his dressers were often treated to coarse language. But there was no real ill-feeling, and any resentment that may have been felt was appeased by an invitation to dinner at his house. He was fond of entertaining. One may perhaps gather what sort of table he kept from the fact that Lord Palmerston is reported to have paid three guineas for a bottle of Liston's wine, at the sale held after his death. That he did not mince matters when he felt strongly appears from the two following extracts: In a lecture on some disease of the nose, he refers to another surgeon's opinion in these words; "He could not," he says, "have considered very well what

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[1] Liston saw cases with a Dr. Quin, a homœopath. This may explain his use of belladonna, also the prescription for arnica which Dr. Cock reproduced in vol. ii of *U.C.H. Magazine*.

he was talking about when he made this announcement." And commenting on a case of cut throat which had been reported in these words: "Surgical assistance was promptly procured, the wound sewed up, but no hopes of his recovery are entertained," he says to this should be added "that in consequence of the ill-timed interference and misdirected attention of the surgeon, every ray of hope had been shut out from the poor sufferer." On the other hand, he sometimes went out of his way to use elegant phrases, as in a case—not his own—in which uncontrollable hæmorrhage followed an attempt to pare off a tumour of the nose. "The patient," he says, "was freed from all his earthly troubles and sorrows within twenty-four hours."

Liston was not one of those elect few who have the gift to appreciate the significance of exceptional results. To most of us the exception to the rule is a misfit and a nuisance, something to be put aside. He relates a case of amputation of the thigh, and cannot find words strong enough to express his admiration for the patient's courage and fortitude. When on the morning following the operation Liston proceeded to remove the stitches—it will be remembered that this was the usual routine—the patient would not let Liston get near him. And this continued day after day. At the end of ten days the patient removed the stitches himself. Liston notes that they had not caused any inconvenience, and were more difficult to remove than usual, as there was no suppuration. Healing had taken place by first intention, and he did not appreciate it. Again, he mentions, but only to condemn, the suggestion to use absorbable ligature made of tendon catgut or fish skin. He does not seem ever to have used them, but inquires how can one be sure that they will not absorb too soon.

He was a keen sportsman, fond of hunting and yachting. It was while on a cruise that he received a severe blow on the chest from the boom, which was supposed to be the cause of the aneurysm of the aorta from which he died in 1847.

It is well known that ether was given for the first time in Europe as an anæsthetic in the old theatre at U.C.H. The event has been graphically described by my old friend, F. W. Cock, in the first volume of this Magazine, and can be read in the library. The case was one of amputation of the thigh; the operator, Liston, and the date, December 21, 1846.

Liston died in 1847, at the early age of 53, the year following the introduction of general anæsthesia. Perhaps he was happy in the time of his death. The cause of the latter was the rupture of an aortic aneurysm into the trachea. Liston first consulted Dr. C. J. B. Williams, and later Dr. Thomas Watson. After Liston's death the former saw fit to write to the *Lancet*, pointing out that he had made a correct diagnosis, and upbraiding Watson for failing to recognize the aneurysm and allowing Liston to continue at work. Watson wrote a dignified reply to this, but the correspondence affords a good example of the medical manners of the times.

Liston had a very extensive practice, and soon after his death a meeting of his friends was called to consider how best to honour his memory. As a result it was resolved to raise a fund to be devoted to having a bust made—now in the medical library—and also to founding a gold medal—to be known as the Liston Medal —to be awarded annually for proficiency in surgery at what we now know as the U.C.H. Medical School, but which was then commonly called the University of London. Among the early subscribers were the Marquis of Anglesey, the Earl of Chesterfield, and the Duke of Buccleuch.

### Liston, Syme, Erichsen and Marshall.

Liston's relations with Syme—the great Edinburgh surgeon—were mixed. In his early Edinburgh days he started a private medical school with Syme, the latter teaching anatomy, Liston surgery. The partnership did not last more than a year. Liston on one occasion openly jeered at Syme. A libel action was threatened, and Liston had to apologize. It will be remembered that Syme was appointed Professor of Surgery at Edinburgh over Liston. The two strong men remained enemies until 1839. Liston, in his letter of reconciliation written in that year, says that the wound of the past is not simply plastered up, but firmly cicatrized. And when, in 1847, it became necessary to appoint a successor to Liston, Syme was asked to come from Edinburgh to U.C.H., and he accepted the invitation. But the appointment aroused great indignation. It was argued that the medical school had now been established long enough to have trained up a man fit to succeed Liston. There was now no need to recruit the staff, as at first, from outside. Syme was actually appointed, and com-

menced to lecture, and his teaching was much appreciated by the students. The prize distribution, which occurred a few months after his appointment, was made the occasion of a very hostile demonstration against the two professors who had been instrumental in promoting Syme's appointment. They could not get a hearing. Syme resolved to resign and returned to Edinburgh.

The resignation of S. Cooper, in 1848, necessitated two new appointments being made, and two U.C.H. men, Erichsen and Marshall, were appointed on the same day. Marshall had been Liston's house surgeon, and later his private assistant. Arnott was appointed Professor of Surgery in Cooper's place, but resigned in 1850. This gave Erichsen his chance; he became full Surgeon and Professor of Surgery, in 1850, at the age of 32. The staff then stabilized, and John Marshall had to wait till 1866 before he became full Surgeon and Professor of Surgery. I attended his lectures in 1883, and in the course of a friendly talk one day after the lecture, he told me how he had, as Liston's assistant, attended what must have been one of the last duels fought in England.

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## Glimpses from the Practice of an Old Practitioner.

A YEAR ago the Editor expressed a wish that more writers would send in matter for his approval as contributions to the Magazine. Many of us, untrained in literary form, yet having plenty of material to interest our fellow students, have a special difficulty in fashioning for the press. We have a backwardness in coming forward to expose our weaknesses to the public eye. "Oh! that mine enemy would write a book!" You know the feeling, as you congregate round a hospital bed for a clinical demonstration, that you may be picked out to conduct the examination and make an exhibition of yourself. I propose giving a few glimpses from a practice of over fifty years which may be useful to young practitioners, and be of some interest to those already established, even if it be only an archæological interest.

In commencing practice there are a few pitfalls and hidden traps which become evident when we have fallen into them. If a